CLAIM AMENDMENTS

1-12. (Canceled)

13. (New) A device for determining at least one of a position and an orientation of an eye, in which a starting point or an end point of a light beam reflected by a part of the eye and detected by at least one of a detector system and a light beam projected by a projection system onto or into the eye quasi two-dimensionally describes a movement pattern of at least one of a scanning movement and a projection movement in the eye when a direction of the light beam is changed with respect to time according to the scanning movement or the projection movement, comprising:

a shifting device that causes a reference point of the movement pattern to follow into a pupillary or macula center, and

a determination device that uses the movement pattern of the scanning movement or projection movement for determining the pupillary center or the macula center.

14. (New) The device according to Claim 13, wherein the device is wearable.

15. (New) The device according to Claim 13, wherein at least one of the light beam projected into the eye and the light beam detected by the detector system is an infrared light beam.

16. (New) The device according to Claim 13, wherein a diameter of a light beam projected by a projection system onto the eye is very small compared to a pupil diameter, and a retinal reflex of the beam is detected.

17. (New) The device according to Claim 13, wherein a splitter mirror is arranged in the light beam, and wherein the splitter mirror allows only a small fraction of a light beam projected by a projection system to pass and reflects a correspondingly large fraction of the incident ocular reflex in the direction of the detector system.

18. (New) The device according to Claim 13, wherein the projection system projects light in a pixel-type manner with a predefined pixel frequency onto the eye, and wherein the projection system modulates the projected light with a frequency that is higher than the pixel frequency.

19. (New) The device according to Claim 13, wherein no active illumination of the eye takes place, and wherein the detector system carries out a pixel-type scanning of at least one of ambient light reflected back from the eye and light emitted by the eye.

20. (New) The device according to Claim 13, wherein a surface that can be positioned in front of the eye has marker areas and normal areas, wherein the marker areas reflect an impinging projection beam originating from the projection system completely back in the direction of the detector system, and wherein the normal areas guide an impinging projection beam originating from the projection system in the direction of the center of the eye.

21. (New) The device according to Claim 13, wherein the position and/or orientation of the eye with respect to its environment is determined in that the detector system detects the retinal structure of the eye as well as the environment reflex image superimposed thereon, detects the position of the fovea by way of the retina structure, and identifies the area of the environment sighted by the fovea by way of a pattern identification.

22. (New) The device according to Claim 13, wherein the relative position of at least one characteristic area of the retina with respect to the optical detector and/or projection system is determined, and wherein the deviations of determined position data of this characteristic area from previously stored position data of this characteristic area are used for the determination of the spatial position and/or orientation of the eye with respect to the optical detector and/or projection system.

23. (New) The device according to Claim 13, wherein a representation of at least selected areas of the retina is detected and is filed in an intermediate memory, and wherein, for the determination of a change of the spatial position of the eye, a comparison takes place of the filed representation with information which the device has obtained from light scanned from the retina and detected during an actual scanning movement.

24. (New) The device according to Claim 13, wherein, by way of a surface, which has a predefined geometrical shape and can be positioned in front of the eye, light can be projected into the eye by a projection system, and wherein the geometrical shape of the surface is used for determining the relative position of at least one characteristic area of the retina with respect to the optical detector and/or projection system.

25. (New) The device according to Claim 13, wherein the at least one of the position of the eye and the orientation of the eye is a direction of vision of the eye.

26. (New) The device according to Claim 14, wherein the device is in the form of spectacles.

27. (New) A method for determining at least one of a position and an orientation of an eye, in which a starting point or an end point of a light beam

reflected by a part of the eye and detected by at least one of a detector system and a light beam projected by a projection system onto or into the eye quasi two-dimensionally describes a movement pattern of at least one of a scanning movement and a projection movement in the eye when a direction of the light beam is changed with respect to time according to the scanning movement or the projection movement, comprising:

causing a reference point of the movement pattern to follow into a pupillary or macula center, and

determining the pupillary center or the macula center using the movement pattern of the scanning movement or projection movement.

28. (New) The method according to Claim 27, wherein the device is wearable.

29. (New) The method according to Claim 27, wherein at least one of the light beam projected into the eye and the light beam detected by the detector system is an infrared light beam.

30. (New) The method according to Claim 27, wherein a diameter of a light beam projected by a projection system onto the eye is very small compared to a pupil diameter, and a retinal reflex of the beam is detected.

31. (New) The method according to Claim 27, wherein a splitter mirror is arranged in the light beam, and wherein the splitter mirror allows only a small fraction of a light beam projected by a projection system to pass and reflects a correspondingly large fraction of the incident ocular reflex in the direction of the detector system.

32. (New) The method according to Claim 27, wherein the projection system projects light in a pixel-type manner with a predefined pixel frequency onto the eye, and wherein the projection system modulates the projected light with a frequency that is higher than the pixel frequency.